

**Notice of Allowability**

Application No.

10/521,118

Examiner

Manuel L. Barbee

Applicant(s)

STRANG ET AL.

Art Unit

2857

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers received 15 August 2006.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-42 are allowed.
2. The following is an examiner's statement of reasons for allowance: Sirkis et al., Williams and Linley do not teach a diagnostic system for plasma processing that includes a multi-modal resonator; a power source, including a Gunn diode voltage controlled oscillator, coupled to the multi-modal resonator; a detector coupled to the multi-modal resonator; a controller coupled to the power source and the detector, where the controller provides at least one monitoring function and at least one controlling function; and a programmable user interface connected to the controller and selecting the at least one monitoring function and the at least one controlling function in the diagnostic system, as shown in claim 1.

Sirkis et al. do not teach a method of controlling a diagnostic system that includes activating a controller, selecting from an user interface, connected to the controller and programmable to select at least one monitoring function and at least one controlling function, a varactor voltage control in order to control a varactor voltage of the power source, selecting from the user interface a detector voltage monitor and adjusting the varactor voltage for the power source using the controller, as shown in claim 26. Strang and Fujii do not teach a method of controlling a diagnostic system that includes activating a controller, selecting from a user interface, connected to the controller and programmable to select at least one monitoring function and at least one controlling function, a varactor sweep voltage, coupling the varactor voltage to a display,

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coupling the transmission signal from a detector to the display, as shown in claim 29.

Sirkis et al. do not a method of controlling a diagnostic system that includes activating a controller, selecting from an user interface, connected to the controller and programmable to select at least one monitoring function and at least one controlling function, a resonance lock-on function, selecting from the user interface a varactor voltage and locking the output frequency of the power source to the cavity resonance of the multi-modal resonator by activating a varactor voltage set-point the controller, as shown in claim 33. Strang and Linley et al. do not teach a method of controlling a diagnostic system that includes activating a controller, selecting from an user interface, connected to the controller and programmable to select at least one monitoring function and at least one controlling function, and activating a varactor sweep control or a resonance lock on control, as shown in claims 37 and 40.

Each of the allowed independent claims includes limitations for selecting from an user interface, connected to the controller and programmable to select at least one monitoring function and at least one controlling function, a monitoring or controlling function. None of the cited prior art teaches using a programmable user interface to select any of the controlling or monitoring functions in a diagnostic system, as shown in the independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mlb  
August 24, 2006

  
**CAROL S.W. TSAI**  
**PRIMARY EXAMINER**